United States Environmental Protection Agency (EPA)
Region 10
Park Place Building, 13th Floor
1200 Sixth Avenue, OW-130
Seattle, Washington 98101

NOTICE OF PROPOSED MODIFICATION OF NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMITS TO DISCHARGE TO WATERS OF THE UNITED STATES, *INCLUDING SPECIAL PROVISIONS CONTROLLING THE USE OF MUNICIPAL SLUDGE AS REQUIRED IN SECTION 405 OF THE WATER QUALITY ACT OF 1987, and NOTICE OF STATE CERTIFICATION

NPDES Permit Number: ID-002044-3, Lander St. Wastewater Treatment Facility

Date: **October 7, 2002**
Public Notice Expiration Date: **November 7, 2002**

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EPA Proposes NPDES Permit Modification.

EPA proposes to modify a *National Pollutant Discharge Elimination System* (NPDES) Permit for the City of Boise, Idaho.

This Fact Sheet includes:
- information on public comment, public hearing, and appeal procedures
- detailed technical material supporting the conditions in the permit

The State of Idaho proposes certification.

The Idaho Department of Environmental Quality (IDEQ) proposes to certify the NPDES permit to the City of Boise under section 401 of the Clean Water Act (the Act).

Public Comment.

EPA will consider all comments before issuing the final permit modifications. Those wishing to comment on the draft permit modifications may do so in writing by the expiration date of the Public Notice. A request for public hearing must state the nature of the issues to be raised as well as the requester's name, address and telephone number. After the Public Notice expires, and all significant comments have been considered, EPA's regional Director for the Office of Water will make a final decision regarding permit modification.

Public comment on the State preliminary 401 certification.

The IDEQ provides the public with the opportunity to review and comment on preliminary 401 certification decisions. Any person may request in writing, that IDEQ provide that person notice of IDEQ's preliminary 401 certification decision, including, where appropriate, the draft certification. Persons wishing to comment on the preliminary 401 certification should submit written comments by the public notice expiration date to the Idaho Department of Environmental Quality (IDEQ), Regional Administrator, 1445 Orchard St., Boise, Idaho 83706. A copy of the comments should also be submitted to EPA.

If no significant comments are received, the tentative conditions in the draft modified permit will become final, and the draft permit will become effective upon issuance. If comments are received, EPA will address the comments and issue the draft permit. The permit will become effective 33 days after the issuance date, unless an appeal is filed with the Environmental Appeals Board within 33 days.

Documents are Available for Review.

The draft NPDES permit and related documents can be reviewed or obtained by visiting or contacting EPA's Regional Office in Seattle between 8:30 a.m. and 4:00 p.m., Monday through Friday (See address below). The fact sheet and draft permit may also be viewed electronically at www.epa.gov/r10earth/water.htm.

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The Fact Sheet and draft permit are also available at:

EPA Idaho Operations Office
1435 North Orchard Street
Boise, Idaho 83706
(208) 378-5746

TECHNICAL INFORMATION

1. BACKGROUND

The intent of this proposed modification of the permit is to respond to a request for modification submitted by the City of Boise on July 25, 2002. Under a previous modification effective January 8, 2001, the City conducted a new metals sampling program collecting clean samples of the effluent in accordance with agreed upon methods. At the same time, the City also conducted a study to determine water effect ratios (WER) for copper and lead. A discussion of the WERs is presented in Appendix A. Based on the results of these studies, the City requested that effluent limitations for copper and lead be removed from the permit. The City requested that water quality-based effluent limitations (WQBELs) for copper and lead be deleted from section I.A.2. of the permit, along with the related footnotes 5 and 6 from the Table in I.A.2; also that all of sections I.A.6., I.A.7., and I.A.8. be deleted.

Information was presented that had not been available at the time the permit was being developed. In addition, the permit included a reopener that allowed the permit to be reopened and limits adjusted based on the results of new information. Accordingly, this permit is being modified according to the requirements of 40 CFR § 124.5 for the reasons specified in 40 CFR § 122.62(a)(2) and (a)(7). Renumbering of Permit Parts, where necessary, has been done without being noted.

2. DESCRIPTION OF THE FACILITY

The city of Boise owns and operates the Lander Street treatment facility that treats wastewater from both domestic and industrial sources (SIC 4952). This facility is one of two wastewater treatment facilities serving Boise, Bench Sewer District, Garden City, West Boise Sewer District and Northwest Boise Sewer District. The Lander treatment facility diverts all flows in excess of 10 to 15 million gallons per day (mgd) to the West Boise Treatment Facility due to hydraulic limitations of 15 mgd nominal capacity at the Lander facility. The Lander Street facility wastewater treatment plant consists of grit and screening removal, primary clarifiers and secondary clarifiers, activated sludge process, nitrification and denitrification, followed by disinfection using ultraviolet. Sludge (biosolids) from the wastewater treatment facility (WWTF) is pumped to the West Boise WWTF and applied to privately held agricultural lands.

The wastewater treatment plant has a design flow of 15 MGD (23.2 cfs), design nitrogen removal of 85%, 5-day biological oxygen demand (BOD_5) and total suspended solids (TSS) removal rates of 85%.

3. RECEIVING WATER

The Lander Street Facility discharges through one outfall throughout the year to the Boise River at approximate river mile 49.7. The state of Idaho Water Quality Standards and

Wastewater Treatment requirements (IDAPA 58.01.02.140.12.) protect the Boise River at this segment, SW-5 for the following existing uses: agricultural water supply, cold water biota, salmonid spawning, and primary contact recreation. The copper and lead water quality criteria that apply to these uses are shown in Appendix A.

4. REGULATORY AUTHORITY

a. State of Idaho Water quality Standards and Limitations

Section 301(b)(1) of the Act requires the establishment of limitations in permits necessary to meet water quality standards by July 1, 1997. All discharges to State waters must comply with state water quality standards, including the state's antidegradation policy. Site-specific criteria are allowed under section 303(c) of the Act and are subject to EPA review and approval. The Federal water quality standards regulations at 40 CFR § 131.11(b)(l) provides States with the opportunity to adopt water quality criteria that are "... modified to reflect site-specific conditions."

b. Section 308 of the Clean Water Act

Under section 308 of the Act and under 40 CFR § 122.44(i), the Director must require a discharger to conduct monitoring to determine compliance with effluent limitations and to assist in the development of effluent limitations.

5. SPECIFIC PERMIT CONDITIONS

This modification of the existing permit NPDES Permit No. ID-002044-3, Lander St. Treatment Facility, is based on new information developed as a result of additional monitoring and studies conducted by the permittee. Additional data consisted of effluent and receiving water concentrations of copper and lead. Based on this new data, new translators, and WERs were developed for the discharge from the Lander Street WWTF. The new data also influenced the determination of the projected maximum effluent concentration, coefficients of variation (CVs), and reasonable potential multipliers (RPMs) in the reasonable potential analysis.

After recalculating criteria using WERs, and evaluating new effluent and background concentration data, EPA concluded that there is no reasonable potential for the discharge from the Lander Street WWTF to cause or contribute to an exceedance of the lead or copper criteria. Appendix A describes the evaluation in detail. Therefore, water quality-based effluent limits for copper and lead are not needed in the permit.

The current permit included water quality-based permit limits for copper and lead. The current regulations at 40 CFR § 122.44(l) only address technology-based effluent limits. The 1987 amendments to the Clean Water Act established a general prohibition against backsliding from water quality-based permit limits. Section 402(o)(1) of the Clean Water

Act prohibits the relaxation of water quality-based effluent limits except in compliance with section 303(d)(4) of the Clean Water Act. Under section 303(d)(4), two scenarios are discussed: attainment and nonattainment waters. The Boise River, the receiving water for the Lander Street WWTF discharge, is an attainment water. In this situation, section 303(d)(4)(B) allows for relaxation of permit limits based on section 303 total maximum daily load wasteload allocation, water quality standards established under section 303 of the Clean Water Act, or any other permit standard.

As a result of additional monitoring and studies conducted by the permittee, the discharge no longer poses a reasonable potential to cause or contribute to an exceedance of water quality standards for copper and lead, and the copper and lead limits have been removed from the draft permit. In this situation, had the limits already been in effect, backsliding would be allowed based on the new information exception under section 402(o)(2) of the Clean Water Act. Because the limits are do not become effective until February 12, 2003 (lead) and November 2, 2004 (copper), antibacksliding does not apply to this situation.

The WER guidance document recommends that where site specific WERs are used in deriving permit limits, the permit should require monitoring so that WERs can be re-evaluated each time the permit is reissued. In addition, it is also recommended that WERs be re-calculated every one to two years. Based on that guidance, the draft permit modification proposes additional monitoring and a study to begin re-determining the WER.

6. REMOVALS and ADDITIONS

a. Removal of Language

i. Section I.A.2., copper and lead limits: pages 4 and 5, remove effluent limits for copper and lead, as well as notes 1 and 5 to the table.

ii. Sections I.A.6., I.A.7. and I.A.8.: pages 5-7, remove these sections addressing copper and lead interim limits, compliance schedules, and final limits.

b. Additions

i. Section I.B.1.: Add Total Organic Carbon to the table of effluent monitoring requirements.

PARAMETER	MONITORING REQUIREMENTS		
	Sample Location	Sample Frequency	Sample Type
Total Organic Carbon (TOC)	Effluent	1/month	24-hour composite

ii. Section I.B.2.b.: Add "copper" to the sentence "Beginning November 2, 2002, . . ."

iii. Section I.C.5.: Add "Total Organic Carbon (TOC)" to the table, at upstream sampling frequency of 1/month.

iv. Section I.C.7.: Add the following.

"b. No later than May 2, 2004, the permittee must submit a study plan to evaluate the adopted water effect ratio (WER) and to determine a new WER (as necessary). This plan must contain, at a minimum,

(1) a description of the guidance to be used in developing the WER, such as U.S. EPA, *Interim Guidance on Determination and Use of Water-Effect Ratios for Metals*, EPA-823-B-94-001, February 1994, or the *Streamlined Water-Effect Ratio Procedure for Discharges of Copper*, EPA-822-R-01-005, March 2001; and

(2) a schedule for implementation of the plan."

7. OTHER LEGAL REQUIREMENTS

a. State Water Quality Standards and State Certification

Section 401 of the Clean Water Act requires EPA to seek state certification before issuing a final permit. As a result of the certification, the state may require more stringent permit conditions or additional monitoring requirements to ensure that the permit complies with water quality standards. In accordance with 40 CFR § 124.01(c)(1), public notice of the proposed permit modification has been provided to the State of Idaho and Idaho state agencies having jurisdiction over fish and wildlife resources.

b. Endangered Species Act

EPA reviewed the U.S. Fish and Wildlife Service website at www.idahoes.fws.gov/PDFS/Ada.pdf for an updated list endangered species. One listed species, the Bald Eagle was included as a potentially threatened species in the area of the Boise wastewater treatment facilities discharge. No other species were listed. Nothing in this proposed permit modification is expected to impact the Bald Eagle.

c. Anti-Degradation Policy.

Boise River is a Tier I waterbody[1]. In proposing to reissue this permit, EPA has considered Idaho's antidegradation policy (IDAPA 16.01.02051.01). This provision states that "the existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected." The issuance of this permit will not result in the increase loading of pollutants. Therefore, the limits in the permit are consistent with Idaho's antidegradation policy.

[1] Tier 1 protects existing uses and provides a minimum level of protection to all waters. Tier 1 water bodies are those water bodies that have water quality at the prescribed levels (i.e., meet the criteria) or are not meeting the criteria (i.e are degraded or impaired).

References

1. Letter from Carl Ellsworth, P.E., Manager, Environmental Division, Boise City Public Works, to Randall F. Smith, Director Office of Water, Region 10, USEPA, Permit Modification Request for Boise City WWTFs, NPDES Permit No. ID-002044-3 (Lander Street WWTF), and NPDES Permit No. ID-002398-1 (West Boise), dated July 24, 2002.

2. U.S. EPA, *Interim Guidance on Determination and Use of Water-Effect Ratios for Metals*, EPA-823-B-94-001, February 1994.

3. U.S. EPA, *The Metals Translator: Guidance for Calculating a Total Recoverable Permit Limit from a Dissolved Criterion*, EPA 823-B-96-007, June 1996.

LIST OF ACRONYMS

AML	average monthly limit
C_d	aquatic life criterion that cannot be exceeded downstream
C_e	concentration of pollutant in effluent
C_u	upstream or background concentration
CCC	criterion continuous concentration
CMC	criterion maximum concentration
CV	coefficient of variation
IDEQ	Idaho Department of Environmental Quality
LTA	long term average
MDL	maximum daily limit
MF	mixing fraction
NPDES	National Pollutant Discharge Elimination System
Q_e	effluent design flow
Q_u	receiving water critical flow
RPM	reasonable potential multiplier
RWC	receiving water concentration
TR	translator
WER	water effects ratio
WLA	wasteload allocation